

REMARKS

Claims 1-14 are pending in this application. Claim 6 has been amended; claim 14 is new. The following remarks are in response to the Office Action mailed October 19, 2004 ("the Office Action").

Claim 6 stands rejected under 35 U.S.C. § 112. Applicants are not able to ascertain the precise ground for the rejection: the Office Action initially says that the rejection of claim 6 is based on the first paragraph of § 112, alleging that the claim is not enabled, then the Office Action later says that the ground for rejection is that the meaning of the term "coil conditions" is unclear (i.e., the rejection is based on indefiniteness, which falls under § 112, second paragraph). In any event, as best understood, this rejection is respectfully traversed.

Regarding the (possible) rejection based on indefiniteness, the term "coil conditions" should be accorded the meaning that would be understood by one skilled in the art: information regarding physical conditions of a coil. See MPEP § 2173.02. The test in this case is whether one skilled in the art would know when claim 6 is being infringed. In order to make that determination, one skilled in the art would only need to check whether claim 1 is infringed, and if so, check whether the infringing system also has feedback circuitry that receives data comprising temperature and coil conditions (of any sort) and transmits that data to the module processor. This test is easily made, so claim 6 is not indefinite.

Regarding the (possible) rejection based on lack of enablement, the term "coil condition" appears in the specification at, for example, page 15, line 9. Thus, that claim element is supported by the specification.

Applicants respectfully suggest that the Patent Office may wish to reconsider and withdraw the § 112 rejection of claim 6. In the alternative, Applicant respectfully requests clarification of the ground for that rejection.

Claims 1 and 3 stand rejected in the Office Action under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,428,470, to Labriola II, in view of U.S. Pat. No. 6,308,231, to Galecki et al. This rejection, as best understood, is respectfully traversed.

As the ground for rejection, the Office Action has a single paragraph apparently copied and pasted (except for the final sentence regarding claim 3) from the previous office action:

Labriola II discloses system for controlling motor comprising module processor in communication with central processor and feedback circuitry in communication with module processor, see fig 1 #50, #56 and col 6 lines 4-65. Labriola II lacks disclosing central processor in communication with encoder. Galecki et al discloses encoder in communication with central processor, see fig 6 #56 and #52 as well as col 12 [lines] 50-55. It would have been obvious to one of ordinary skill in the art to combine the control system of Labriola II with the encoder with central processor of Galecki et al for improved control. With respect to claim 3 it is disclosed in Labriola as #42.

As explained Applicants' response to the previous office action, the above-quoted § 103 rejection of claim 1 is improper, for at least several reasons.

First, the Office Action fails to particularly point put those parts of Labriola that are relied upon to reject claim 1. "When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable." MPEP § 706(c)(2). Applicants respectfully submit that the Office Action has not satisfied this requirement. The Office Action asserts that Labriola discloses "system for controlling motor comprising module processor in communication with central processor and feedback circuitry in communication with module processor" at "fig 1 #50, #56 and col 6 lines 4-65." Applicants are unable to determine what element of Labriola the Patent Office is identifying as a "module processor," what element is alleged to be a "central processor," and what elements are alleged to be "feedback circuitry." Simply referring to two elements of FIG. 1 (50 and 56) and essentially all of column 6 does not convey the required information. Clarification is respectfully requested.

Second, the Office Action fails to particularly point out those parts of Galecki that are relied upon to reject claim 1. The Office Action alleges that Galecki "discloses encoder in communication with central processor, see fig 6 #56 and #52 as well as col 12 lines 50-55." Galecki has a FIG. 6A and a FIG. 6B (no figure is labeled "FIG. 6"). Neither FIG. 6A nor FIG. 6B has an element labeled "56." Indeed, there appears to be no element 56 in Galecki at all (in any of the figures). Further, element 52 is merely a "control-side terminal." The Patent Office has thus provided only vague and partially inaccurate indications as to what precise elements in Galecki are supposed to, in combination with Labriola, render claim 1 unpatentable. Clarification is respectfully requested.

Third, there is no proper motivation provided for combining Labriola with Galecki. Labriola is directed to a modular automatic analyzer. An electric motor is incidentally mentioned, but Labriola's system is not in the electric motor field (see, e.g., abstract, and FIG. 1). Galecki is directed to a programmable analog I/O circuit for use in an industrial control system. Galecki is directed to a particular generic control circuit (see, e.g., FIG. 3A), and is not in the electric motor field specifically. Thus, neither Labriola nor Galecki is analogous art to the present invention.

In light of the fact that non-analogous references were improperly cited in the Office Action, the Patent Office is respectfully requested to identify the specific field to which Applicants' invention allegedly belongs (i.e., to identify analogous art) and to restrict cited references to that field. See MPEP § 2141.01(a) (Heading): "To rely on a reference under 35 U.S.C. 103, it must be analogous prior art." See also MPEP § 2141.01(a), "Analogy in the Electrical Arts."

The ground asserted in the Office Action for combining alleged elements of Labriola with alleged elements of Galecki is that it "would have been obvious to one of ordinary skill in the art to combine the control system of Labriola II with the encoder with central processor of Galecki et al for improved control." But this alleged motivation to combine is improper for at least three reasons: it uses Applicants' claim as a roadmap, the combination doesn't result in Applicants' invention, and there could be no reasonable expectation of success.

As is well-known, it is improper for the Patent Office to use hindsight as a guide to combining references. In order for Labriola properly to be combined with Galecki, there must be some teaching or motivation in the prior art to make that specific combination. See, e.g., MPEP § 706.02(j): "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure."

An unsupported allegation that combining Galecki with Labriola would result in "improved control" is not enough. Why would one skilled in the art aware of Labriola decide to choose Galecki if they wanted to "improve control"? Why does "control" in Labriola need to be improved? How does the system taught by Galecki improve control of some aspect of the

system of Labriola? What particular aspect of Labriola's system has its control improved by Galecki? And what particular aspect of Galecki improves control for Labriola's system? Clearly, vague assertions of "improvement" do not provide a proper motivation to combine these two particular references. More details must be provided by the Patent Office to support its § 103 rejection of claim 1.

Moreover, combining Labriola with Galecki doesn't appear to result in an operable system, much less result in Applicants' invention. Labriola teaches an automatic analyzer; Galecki teaches a control circuit. The Office Action doesn't explain how those two systems are to be combined, or how the resulting combination would work. Obviously the "central processor" of Labriola would differ from that of Galecki (assuming each discloses some type of central processor) – one would not expect to just take Galecki's central processor and plug it into Labriola's system. And neither would have a central processor as described in claim 1.

In any event, there is no reason to believe that such a combination would result in Applicants' invention. Indeed, there's no reason to believe that such a combination would result in anything desirable. So there is no reasonable expectation of success.

Since claim 1 is allowable, so is claim 3. However, for prosecution efficiency Applicants separately address the rejection of claim 3. The Office Action asserts: "With respect to claim 3 it is disclosed in Labriola as #42." But claim 3 is restricted to a user interface that "enables a user to select preferred operational parameters for an electric motor." Nothing in Labriola suggests such an interface. Operator interface computer 42 of Labriola is used to specify tests to be performed by an analyzer (see, e.g., column 9, lines 47-59):

an operator may select a test to be performed by using the operator interface computer 42. The operator may specify a particular sample by, for example, a sample identification number that may be bar coded onto the particular sample and may specify the particular test to be conducted. The operator interface computer 42 communicates the test request via the link 46 to the instrument control computer 50, which in turn schedules the various tasks to be performed by the automated analyzer 44. The test procedure may include, for example, drawing a reagent from a reagent container 390 and depositing the reagent into a reaction cuvette 392.

Thus, operator interface computer 42 is totally unrelated to the user interface of claim 3 (as would be expected from a non-analogous reference). The Patent Office is respectfully reminded that claim 3 is not directed to (or anticipated by) every user interface – it is directed only to the user interface specified in the claim, and is further limited by the limitations of claim 1. Labriola discloses no such interface.

Claims 2-8 stand rejected under 35 U.S.C. § 103 as unpatentable over Labriola, Galecki, Stanton, Giacomini, and Miyanari. This rejection is respectfully traversed.

First, claims 2-8 depend from the claim 1. Since the rejection of claim should be withdrawn, so should the rejections of claim 2-8.

Second, the mere fact that 5 references are sought to be combined is unambiguous evidence that claims 2-8 have been used improperly as a roadmap to combine references. Using the Patent Office's approach, any claim on any patent that has ever issued could be found unpatentable. All the Patent Office would need to do is find, for each term used in the claim, a reference that discloses that term. Clearly this approach is both unfair and improper. The motivation to combine references cannot be a motivation to render the claim unpatentable.

Third, the references fail to disclose all of the limitations for which they are cited. For example, Giacomini does not disclose a feedback circuit as required by claim 6. Element 28 of Giacomini is a current sense circuit "that provides feedback information of current delivered to the motor." There is no mention of coil condition information for individual coils, and no mention of temperature information, regarding element 28.

Furthermore, claim 4 requires that the central processor of claim 1 receives rotor and stator positional information from the encoder of claim 1 "and rpm values, and transmits differences in latency" to the module processor of claim 1. Stanton is cited in the Office Action as disclosing rotor and stator positional information, but the other limitations of claim 4 are not mentioned in the Office Action. That is, the Patent Office has not alleged that any of the cited references discloses a system as in claim 1, wherein said central processor receives rotor and stator positional information from said encoder and rpm values, and transmits differences in latency to said module processor. Thus, claim 4 should not have been rejected.

Claim 7 requires the elements of claim 1, wherein the central processor comprises a field programmable gate array. The Office Action does not assert that any of the cited references

teaches a field programmable gate array of any form, so the rejection of claim 7 should be withdrawn.

The Office Action asserts that FIG. 5 of Miyanari discloses an H-bridge circuit, but that assertion is not supported by the text of Miyanari. Applicant respectfully requests the Patent Office to identify by reference number the element or elements of FIG. 5 that are believed to show an H-bridge circuit. Otherwise, the rejection of claim 8 should be withdrawn.

Claims 9-13 stand rejected under 35 U.S.C. § 103 as unpatentable over Stanton in view of Miyanari and Hlavinka. This rejection is respectfully traversed.

The attempted combination of Stanton, Miyanari, and Hlavinka is improper because: (a) there is no proper motivation to combine the references (that is, the only apparent motivation comes from reviewing the pending claims); (b) there is no reason to believe such a combination would be operable or would result in Applicants' invention; and (c) not all of the cited references are analogous art. Hlavinka, for example, is directed to a particle separation method and apparatus, and thus is totally unrelated to Applicants' invention and the problem to which it is directed (see discussion above regarding non-analogous art). Since Hlavinka is clearly non-analogous, attempting to combine it with Stanton and Miyanari is improper, and the rejection based on that attempted combination is improper.

Regarding the rejection of claims 1-13, Applicants respectfully note that the limitations of those claims are not addressed in the Office Action, so a rejection of those claims is not supported. Even if independent claim 9 were unpatentable, that would not render dependent claims 10-13 unpatentable. The rejections of claims 10-13 is therefore improper and should be withdrawn.

All arguments made in previous responses filed in this case are incorporated herein in their entirety where relevant and consistent with this Response.

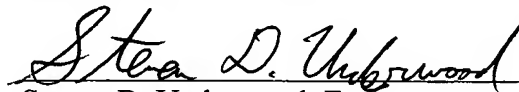
Finally, Applicants respectfully note that it is improper to ignore (that is, fail to address) good-faith arguments made in response to office actions. See MPEP § 707(f): "Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it." Applicants respectfully submit that the present Office Action fails to address many of the grounds for traversal made in the

preceding response, and trust that the Action following the instant Response will address each of the grounds for traversal made herein.

All claim rejections are believed to have been overcome by this Response. All pending claims therefore are believed to be allowable, and a prompt Notice of Allowance would be appreciated.

No fee is believed due with this Response. However, if any fee is due, please charge that fee to Deposit Account No. 50-0310.

Respectfully submitted,

A handwritten signature in cursive script, reading "Steven D. Underwood", written in black ink.

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